

Appln No. 09/693,647
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Response to Office action of January 10, 2005

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended). A method of enabling a device to be controlled, via a control interface containing information relating to the device function, the control interface including invisible coded data and visible graphic data printed substantially simultaneously thereon- by a same printer wherein the invisible coded data is indicative of an identity of the control interface and of a plurality of reference points of the control interface, the coded data identifying a unique location of each of the reference points relative to the control interface, and wherein at a time of printing a computer system associates a type and spatial extent of each reference point of the invisible coded data with a spatial extent of at least some of the visible graphic data in which the device is operative to perform at least one function in response to control instructions from the computer system, the method including the steps of:

receiving, in the computer system, indicating data from an optical sensing device regarding the identity of the control interface and a position of the sensing device relative to the control interface the sensing device, when placed in an operative position relative to the control interface, reading at least some of the coded data on the control interface, and generating the indicating data using at least some of the read coded data; and

effecting, in the computer system and from the indicating data, an operation relating to at least one parameter of the control instructions.

2 (Original). The method of claim 1 in which said at least one parameter relating to the control instructions is associated with at least one zone of the control interface and in which the method includes effecting, in the computer system and from the zone relative to which the sensing device is located, an operation relating to said at least one parameter.

3 (Original). The method of claim 2 which includes

receiving, in the computer system, data regarding movement of the sensing device

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receiving, in the computer system, data regarding movement of the sensing device relative to the control interface, the sensing device sensing its movement relative to the control interface using at least some of the coded data; and

effecting, in the computer system and from said movement being at least partially within said at least one zone, an operation relating to said at least one parameter of the control instructions.

4 (Currently Amended). A method of enabling a device to be controlled in which the device is operative to perform at least one function in response to control instructions from a computer system, the method including the steps of:

providing a control interface containing information relating to the device function, the control interface including invisible coded data and visible graphic data printed substantially simultaneously thereon by a same printer, wherein the invisible coded data is indicative of at least one parameter of the control instructions and of a plurality of reference points of the control interface, the coded data identifying a unique location of each of the reference points relative to the control interface, and wherein at a time of printing the computer system associates a type and spatial extent of each reference point of the invisible coded data with a spatial extent of at least some of the visible graphic data;

receiving, in the computer system, indicating data from an optical sensing device relating to said at least one parameter and regarding movement of the sensing device relative to the control interface, the sensing device, when moved relative to the control interface, sensing the coded data regarding said at least one parameter using at least some of the coded data and generating the indicating data regarding the sensing device's own movement relative to the control interface; and

interpreting, in the computer system, said movement of the sensing device as it relates to said at least one parameter.

5 (Currently Amended). A method of enabling a device to be controlled in which the device is operative to perform at least one function in response to control instructions from a computer system, the method including the steps of:

providing a user with a control interface including invisible coded data and visible

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graphic data printed substantially simultaneously thereon by a same printer, wherein the invisible coded data is indicative of an identity of the control interface and of a plurality of reference points of the control interface, the coded data identifying a unique location of each of the reference points relative to the control interface, and wherein at a time of printing the computer system associates a type and spatial extent of each reference point of the invisible coded data with a spatial extent of at least some of the visible graphic data;

receiving, in the computer system, indicating data from an optical sensing device regarding an identity of the user and regarding the identity of the control interface, the sensing device containing the data regarding the identity of the user and sensing the data regarding the identity of the control interface by reading ~~using~~ at least some of the coded data; and

effecting, in the computer system and from the indicating data regarding the identity of the user and the identity of the control instructions, an operation relating to at least one parameter of the control instructions.

6 (Previously Presented). The method of claim 5 which includes receiving, in the computer system, data from the sensing device regarding movement of the sensing device relative to the control interface, the sensing device generating data regarding its own movement relative to the control interface.

7 (Previously Presented). The method of any one of claims 1, 4 or 5 in which the parameter of the control instructions is selected from the group comprising:

- selecting said device;
- selecting said function to be performed;
- establishing default setting for said function;
- establishing default setting for said device;
- registering user access to control the device function;
- authorizing user access to control the device function; and
- issuing a command code to said device to perform said function.

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8 (Original). The method according to any one of claims 1, 4 or 5 further including the step of issuing a command code to said device to perform said function in response to operation of the computer system.

9 (Original). The method of claim 8 in which the command code is issued to said device through said sensing device.

10 (Original). The method of claim 8 in which the command code is issued to said device independently of said sensing device.

11 (Original). The method according to claim 8 in which the command code is issued to said device using wireless technology.

12 (Original). The method of any one of claims 1, 4 or 5 which includes printing the control interface on demand.

13 (Original). The method of claim 12 which includes printing the control interface on a surface of a surface-defining means and, at the same time that the control interface is printed, printing the coded data on the surface.

14 (Cancelled)

15 (Original). The method of claim 1, 4, or 5 which includes retaining a retrievable record of each control interface generated, the control interface being retrievable using its identity as contained in its coded data.

16 (Original). The method of any one of claims 1, 4 or 5 which includes distributing a plurality of the control interfaces using a mixture of multicast and pointcast communications protocols.

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17 (Original). The method of claim 1 or 4 in which the sensing device ~~contains~~ an identification means which imparts a unique identity to the sensing device and ~~identifies~~ it as belonging to a particular user and in which the method includes monitoring, in the computer system, said identity.

18 (Original). The method of any one of claims 1, 4 or 5 which includes providing all required information relating to the device function in the control interface to eliminate the need for a separate display device.

19 (Original). The method of any one of claims 1, 4 or 5 in which the control interface is printed on multiple pages and in which the method includes binding the pages.

20 (Currently Amended). A system for enabling at least one function of a device to be controlled, the system including:

a control interface containing information relating to the device function, the control interface including invisible coded data and visible graphic data printed substantially simultaneously thereon by a same printer, wherein the invisible coded data is indicative of an identity of the control interface and of a plurality of reference points of the control interface, the coded data identifying a unique location of each of the reference points relative to the control interface, and wherein at a time of printing a computer system associates a type and spatial extent of each reference point of the invisible coded data with a spatial extent of at least some of the visible graphic data; and

at the computer system incorporating control instructions operative to cause said device to perform said function and operative to receive indicating data from an optical sensing device for effecting an operation relating to at least one parameter of the control instructions, the indicating data being indicative of the identity of the control interface and a position of the sensing device relative to the control interface, the sensing device reading the coded data on the control interface and generating the indicating data using at least some of the read coded data.

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21 (Previously Presented). The system of claim 20 in which said at least one parameter relating to the control instructions is associated with at least one zone of the control interface.

22 (Currently Amended). The system of claim 20 which includes ~~the sensing device,~~ the sensing device sensing its movement relative to the control interface using at least some of the coded data.

23 (Currently Amended). A system for enabling at least one function of a device to be controlled in response to control instructions, the system including:

a control interface containing information relating to the device function, the control interface including invisible coded data and visible graphic data printed substantially simultaneously thereon by a same printer, wherein the invisible coded data is indicative of at least one parameter of the control instructions and of a plurality of reference points of the control interface, the coded data identifying a unique location of each of the reference points relative to the control interface, and wherein at a time of printing a computer system associates a type and spatial extent of each reference point of the invisible coded data with a spatial extent of at least some of the graphic data; and

athe computer system incorporating said control instructions, and operative to receive indicating data from an optical sensing device regarding said at least one parameter and regarding movement of the sensing device relative to the control interface, and for interpreting said movement of the sensing device as it relates to said at least one parameter, the sensing device, when moved relative to the control interface, sensing at least some of the coded data printed on the control interface regarding said at least one parameter using at least some of the coded data and generating the indicating data regarding the sensing device's its own movement relative to the control interface.

24 (Currently Amended). A system for enabling at least one function of a device to be controlled, the system including:

a control interface including invisible coded data and visible graphic data printed substantially simultaneously thereon by a same printer, wherein the invisible coded data is

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indicative of an identity of the control interface and of a plurality of reference points of the control interface, the coded data identifying a unique location of each of the reference points relative to the control interface, and wherein at a time of printing a computer system associates a type and spatial extent of each reference point of the invisible coded data with a spatial extent of at least some of the visible graphic data; and

the computer system incorporating control instructions to cause said device to perform said function, and operative to receive from an optical sensing device indicating data regarding an identity of the user and the identity of the control interface, and for effecting, from said received data, an operation relating to a parameter of said control instructions, the sensing device containing the data regarding the identity of the user and sensing at least some of the coded data printed on the control interface regarding the identity of the control interface using at least some of the coded data.

25 (Currently Amended). The system of claim 24 which includes ~~the sensing device,~~ the sensing device sensing its movement relative to the control interface.

26 (Previously Presented). The system of any one of claims 20, 23 or 24 in which the parameter of the control instructions is selected from the group comprising:

- selecting said device;
- selecting said function to be performed;
- establishing default setting for said function;
- establishing default setting for said device;
- registering user access to control the device function;
- authorizing user access to control the device function; and
- issuing a command code to said device to perform said function.

27 (Original). A system according to any one of claims 20, 23, or 24 in which the computer is operative to issue a command code to said device to perform said function through said sensing device.

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28 (Original). A system according to any one of claims 20, 23, or 24 in which the computer is operative to issue a command code to said device to perform said ~~function~~ independently of said sensing device.

29 (Original). The system of claim 20 or 23 in which the sensing device contains an identification means which imparts a unique identity to the sensing device and identifies it as belonging to a particular user.

30 (Original). The system of any one of claims 20, 23, or 24 in which the control interface is printed on a surface of a surface-defining means and in which the system includes a printer for printing the control interface on demand.

31 (Original). The system of claim 30 in which the printer prints the coded data at the same time as printing the control interface on the surface-defining means.

32 (Cancelled).

33 (Original). The system of claim 20 or 23 which includes a database for keeping a retrievable record of each control interface generated, each control interface being retrievable by using its identity as included in its coded data.

34 (Original). The system of claim 30 in which, to cater for a control interface printed on multiple pages, the printer includes a binding means for binding the pages.